

**ABSTRACT**

A method for measuring the distance of an object from a measuring device is disclosed, said method comprising the following steps:

- 5    a) emitting a signal;
- b) directing the signal towards an object;
- c) detecting the signal diffused by the object;
- d) comparing the detected signal with the emitted signal so as to obtain a comparison signal representing the
- 10    distance travelled by the emitted signal and the object diffused signal. The method of the invention is characterized in that it comprises the steps of:
- e) carrying out before step a) a measuring device calibration step so as to associate a prefixed comparison
- 15    signal value to a prefixed distance value;
- f) identifying the distance value associated, in the previous calibration step, to the value of said comparison signal obtained in step d);
- g) associating the distance value identified in step f)
- 20    to the comparison signal obtained in step d). In the calibration step, the luminous image diffused by a surface of known reflectance placed at a prefixed distance is detected to obtain a numerical value for at least a sample  $x_j$ , the prefixed distance value at which
- 25    the surface of known reflectance has been placed is associated to said numerical value so obtained, and the previous steps are iteratively repeated for a prefixed number of times, each time moving the surface of known reflectance by a prefixed distance interval.